Arithmetic Patterns

Grade 3 Math Worksheet - Challenge Me

PencilGo

Name _____ Date _____

Circle the answer, or write the answer on the line.

1. The 3s row and the 3s column of a multiplication table have the same numbers. Why?

   every number in the 3s row is odd

   3 × 5 is the same as 5 × 3

   each row is 3 more than the last

   3 × 5 is the same as 3 + 5

2. Which number goes in the empty box?

   81 72 63 ☐ 45

   55 54 52 64

3. Which number is in both the 4s row and the 6s row?

   24 30 18 16

4. A pattern starts at 3 and adds 4 each time. Why is every number odd?

   even plus even is always odd

   odd plus odd is always odd

   adding 4 makes any number odd

   odd plus even is always odd

5. The digits of a 9s product add to 9. Which number could be in the 9s row?

   64 53 63 73

6. On a hundred chart, start at 47. Move down one row, then two squares left. Where do you land?

   65 45 59 55

7. Tia says 6 × 7 is odd because 7 is odd. Is she right?

   Yes, 6 × 7 is 43, which is odd

   No, 6 × 7 is even because 6 is even

   No, 6 × 7 is even because 7 is odd

   Yes, an odd factor always makes an odd product

8. Sam adds three odd numbers: 3 + 5 + 7. Is the sum even or odd? Why?

odd, because odd + odd is even, then even + odd is odd

even, because odd numbers always add to an even number

even, because 3 + 5 + 7 is 16

odd, because any sum of odd numbers is odd

9. A pattern starts at 100 and subtracts 7 each time. What is the fourth number?

_____

10. Kim says every product in the 6s row is even. Which reason proves it?

the other factor is always even

every 6s product ends in 6

6 is even, and an even factor makes an even product

6 × 3 = 18, and 18 is even

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Answer Key - Grade 3 Math Worksheet - Challenge Me

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